

REMARKS/ARGUMENTS

Introductory comments

This Amendment is submitted in response to the November 16, 2005 final Office Action issued in connection with the above-identified patent application. Claim 1 (the sole independent claim) has been amended as shown above, and dependent claim 5 has been added. Upon entry of this Amendment, the pending claims will be currently amended independent apparatus claim 1, with claims 2-5 depending therefrom. No new matter has been added. It is respectfully requested that the Examiner review and consider the foregoing claim amendments in view of the following remarks.

Summary of the office action

In the Office Action the Examiner has rejected claims 1-4 under 35 U.S.C. 112, second paragraph, as being indefinite because the phrase "arcuate path positioned laterally of the form" is unclear, and because no antecedent basis has been established for "said laterally positioned end of said oscillating arm". Claims 1-4 have also been rejected under 35 U.S.C. 102(b) as anticipated by EP 962304 to Bridgestone (hereinafter "EP '304").

Brief discussion of the disclosed embodiment of the invention

The Examiner is invited to review the discussion of the disclosed embodiment of the invention which was set forth in detail in the August 5, 2004 Amendment. Briefly, an apparatus is disclosed for producing a tire reinforcement from a single thread by applying the thread between ends of a thread path to a "form", e.g., a tire core. The thread is applied to the form by a solid oscillating arm 31 that oscillates about a geometrical axis of rotation 31R. The terminal part of the oscillating arm has a spout 31T that supports a guiding member, e.g. orifice 6, in which the thread slides freely, to apply the thread to the form. Claim 1 includes the following features:

1. the oscillating arm comprises
 - (i) the terminal part,
 - (ii) one end coupled to the control, and
 - (iii) an intermediate part between said one end and said terminal part,
2. wherein said terminal part includes a spout extending between said intermediate part and said guiding member,
3. said spout being inclined with respect to said geometrical axis of rotation and extends inwardly toward the form, the spout directly supporting the guiding member so as to bring the guiding member close to the form at least in the configuration assumed by the apparatus when the guiding member is close to the end of the path

Rejection under 35 U.S.C. 112 has been overcome

Claim 1 has been amended hereinabove to replace "said guiding member ... moves in an arcuate path positioned laterally of the form" with --said guiding member ... moves in an arcuate path lying externally of the form--. This overcomes the indefiniteness raised by the Examiner. Also, claim 1 has been amended to delete the phrase "said laterally positioned end of said oscillating arm", thereby rendering moot the lack of an antecedent basis. These amendments have not been made for the purpose of distinguishing the claim over the prior art. As a result of these amendments, the rejection under 35 U.S.C. 112 has been overcome.

Claimed invention is allowable over prior art

Turning now to the merits, claims 1-4 stand rejected under 35 U.S.C. 102(b) as anticipated by EP '304. For the following reasons, applicant respectfully requests reconsideration and withdrawal of this rejection.

As explained in detail in the August 5, 2004 Amendment, EP '304 discloses two embodiments of a feed mechanism for applying a cord (e.g. a thread) to a tire core. The first embodiment is depicted as feed mechanism 5 in FIGs. 1-4b and includes a bent arm 17 rotatable about its geometrical axis by a gear 19. A distal end of the arm supports a thread passage 21 and a pair of rollers 23 which are oriented to travel about a meridian of the core 1 for dispensing the thread along the meridian so that the thread can be pressed into place by a pair of press mechanisms 7. When in operation, the oscillation of the end of the arm containing the passage 21 about the arm geometrical axis causes the passage 21 to move across and on either side of the form, to and fro, to position the thread at the path ends for engagement by the press mechanisms 7.

The Examiner contends that

“As to the requirement for a spout extending from a laterally positioned end of the arm inwards towards the toroidal form, in light of figs. 1-4 and esp. fig. 4a, it is apparent that the end of the arm can be termed a spout that is curved or extends inward towards the toroidal core...”

Claim 1, as amended herein, specifies that the terminal part of the oscillating arm includes a spout that directly supports the guiding member, wherein “said spout [is] inclined with respect to said geometrical axis of rotation and extends inwardly toward the form.” In EP '304, the portion of the bent arm 17 to which the Examiner has referred as a “spout” and which directly supports passage 21 is clearly NOT INCLINED relative to the geometrical axis of rotation. As a result, the apparatus of claim 1 places the thread much closer to the sides of the form than that of the embodiment shown in FIGs. 1-4b of EP '304.

In view of the fact that the present claimed arrangement places the thread much closer to the sides of the form, it would be expected that something would have been said about it in this reference. To the contrary, nothing is stated in this regard in paragraph [0032] in col. 7 of EP

'304, which is the only portion of this reference where arm 17 of the first embodiment is discussed. Instead, that so-called "spout" in this reference is consistently depicted in Figs. 1-4b as being oriented in parallel to the geometrical axis of rotation.

Accordingly, present claim 1 is certainly not anticipated by the first embodiment of EP '304. Moreover, there is no disclosure, teaching or suggestion in this reference to utilize such a feature. Thus, claim 1 is also unobvious over the first embodiment of EP '304.

Turning now to the second embodiment depicted in FIG. 5 of EP '304, the Examiner has agreed with applicant's prior remarks, set forth in the August 5, 2004 Amendment, that FIG. 5 of EP '304 depicts a "hinged" arm in contrast to "a solid oscillating arm" of claim 1. Also, the embodiment of FIG. 5 requires the guiding member at the end of the arm to come in contact with the core, in contrast to claim 1 which recites that the guiding member is moved about the form "without substantially coming into contact with the form". See page 3, lines 13-16 of the Office Action. For these reasons, amended claim 1 is neither anticipated nor rendered obvious by the second embodiment depicted in FIG. 5 of EP '304.

Inasmuch as claim 1 is believed to be patentable over EP '304, claims 2-5 which depend from claim 1, are also believed to be patentable for at least the same reasons.

Based on all of the above, it is respectfully submitted that the present application is now in proper condition for allowance. Prompt and favorable action to this effect and early passing of this application to issue are respectfully solicited.

Should the Examiner have any comments, suggestions, questions or objections, the Examiner is respectfully requested to telephone the undersigned in order to facilitate a resolution of any such matters.

Appln. No. 10/066,044
Amdt. dated March 15, 2005
Reply to Office Action of Nov. 16, 2004

It is believed that no additional fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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